

## ABSTRACT

The steam humidifier fed with a premix of natural gas and forced air under low pressure (less than 1 psi) includes a main frame, a movable lower frame, a two part evaporation canister, releasably sealed, for water, an immersible combustion chamber retaining a radiant gas burner and a heat exchanger coupled downstream thereto. The heat exchanger is a coil with an upstream end coupled to the combustion chamber and a downstream end mounted through the upper part of the canister. Maintenance is enhanced by having the lower part of the evaporation tank or canister move downwardly to expose the combustion chamber and the heat exchanger coils. The coils are subject to thermal shock or relatively rapid thermal expansion and contraction which causes scale, adhered thereon, to be released and broken off. A high degree of control and modulation is achieved because the radiant burner is configured for modulated operation from a blue flame mode through a radiant mode.

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